

App' No. 201493338
Am't. Dated February 25, 2005
Response to Office Action of December 7, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously amended) A communication apparatus for transmitting packetized information, said information comprising a plurality of packets, each of said packets comprising data and a header, over a satellite link in a telecommunications system, said system comprising a client, selected from a plurality of potential clients, a server, selected from a plurality of potential servers, a first gateway connected to said client by a first telecommunications link, a second gateway connected to said server by a second telecommunications link, a third telecommunications link connecting said first gateway to said second gateway, said apparatus comprising:

a network interface for linking said first gateway with said client;

a satellite gateway interface;

a system memory; and

a bus interconnecting said network interface, said satellite gateway interface, and said system memory with a processor, said processor operatively disposed to:

intercept a connection attempt intended for the with said server, said connection attempt initiated by said client;

establish a connection between said first gateway and said second gateway over said third telecommunications link, the connection unique to the connection attempt;

convert a flow of information received from the client from a first transport layer protocol to a second transport layer protocol prior to transmission over the third telecommunications link; and

convert a return flow of information from the second transport layer protocol to the first transport layer protocol prior to transmission to the client;

wherein converting the flow of information and converting the return flow of information occurs transparently to said client and said server; and

wherein the connection established between the first and second gateways is terminated when the flow of information and the return flow of information is complete.

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2. (Cancelled)

3. (Previously presented) The apparatus of claim 1 wherein the first transport layer protocol comprises TCP and said second transport layer protocol comprises XTP.

4. (Previously presented) The apparatus of claim 1 wherein said second protocol is more suitable for transmission over a satellite link than using a TCP protocol.

5. (Previously presented) The apparatus of claim 1 wherein said converting comprises removing said header to leave said data substantially intact.

6. (Previously presented) The apparatus of claim 1 wherein said converting comprises removing said header to leave said data substantially intact and encapsulating said data using a satellite protocol header.

7. (Original) The apparatus of claim 6 wherein said data is a portion of said flow of information.

8. (Previously presented) The apparatus of claim 1 wherein said processor is further operatively disposed to receive said flow of information by a gateway over said first telecommunications link.

9.-22. (Cancelled)

23. (Previously amended) A communication apparatus comprising:
a system memory;
a processor;
at least one network interface; and
a bus interconnecting the system memory, the processor and the at least one network interface;

wherein the processor is operatively disposed to:

intercept a connection attempt initiated by a client in a first transport layer protocol, the connection attempt intended for a destination server;

establish a transport connection between a first gateway and a second gateway that is over a telecommunications link, the second gateway adapted for forming a communication connection between the second gateway and the destination server;

wherein a bi-directional flow of information between the first and second gateways is in a second transport layer protocol;

wherein the transport connection is for only the bi-directional flow of information intended for the client and the destination server; and

terminate the transport layer connection between the first and second gateways when the bi-directional flow of information is complete.

24. (Previously presented) The apparatus as in claim 23 wherein the communications between the client and the first gateway, between the first and second gateways, and between the second gateway and the server travel on a 1: 1: 1 connection relationship.

25. (Previously presented) A communication apparatus comprising:

a system memory;

a processor;

at least one network interface; and

a bus interconnecting the system memory, the processor and the at least one network interface;

wherein the processor is operatively disposed to:

intercept a connection attempt initiated by a client in a first transport layer protocol, the connection attempt intended for a destination server;

establish a transport connection between a first gateway and a second gateway that is over a telecommunications link; and

form a communication connection between the second gateway and the destination server;

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wherein a bi-directional flow of information between the first and second gateways is in a second transport layer protocol;

wherein the processor is further operatively disposed to extract an urgent pointer from a packet header in the first transport protocol, and incorporate the urgent pointer into a packet header in the second transport protocol for transmission over the telecommunications link between the first and second gateways.

26. (Previously presented) The apparatus as in claim 23 further comprising a rate control module.

27.-32. (Canceled)

33. (Previously Presented) The apparatus of claim 1 wherein the processor is further operatively disposed to transmit a first connection acknowledgement response from the first satellite gateway to the client when a communication connection with the destination server occurs.

34. (Previously Presented) The apparatus of claim 1 wherein the processor is further operatively disposed to:

intercept a second connection attempt intended for a second server, the connection attempt initiated by a second client; and

establish a second connection between the first gateway and the second gateway over the third telecommunications link, the second connection unique to the second connection attempt.

35. (Previously Presented) The apparatus as in claim 34 wherein the second connection is distinct from the first connection.

36. (Previously Presented) The apparatus as in claim 34 wherein the processor is further operatively disposed to:

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convert a flow of information received from the second client from a first transport layer protocol to a second transport layer protocol prior to transmission over the third telecommunications link; and

convert a return flow of information from the second transport layer protocol to the first transport layer protocol prior to transmission to the second client.

37. (Canceled)